BIOLOGICAL TECHNICAL REPORT
FOR
BLOOM MINOR GRADING PERMIT
#1026-20050080
APN# 390-040-54
ER 05-14-017

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1.0 SUMMARY OF FINDINGS

The proposed project is the grading of a driveway, house and septic. Additionally, the project proposes 12.38 acres of open space.

The project area is located in the eastern portion San Diego County within the Community of Lakeside in the County of San Diego. It is located east of Highway 67 north of Interstate 8. The project is located in Township 15 South, Range 1 East of the El Cajon Mountain USGS 7.5' Quadrangle. The project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP) and is mapped as a Pre-Approved Mitigation Area. The site qualifies as a BRCA in accordance with the Biological Mitigation Ordinance.

This report provides information regarding existing conditions, compliance with the Biological Mitigation Ordinance (BMO) and performs an impact analysis based on the current road design. This report also identifies mitigation measures that conform to the Biological Mitigation Ordinance, therefore reducing any impacts to below a level of significance.

A general biological survey was performed. The site for the purposes of this report includes the area of proposed impacts and a one hundred foot wide buffer around the house pad and a ten foot buffer on each side of the driveway. The entire property burned in the Cedar Fire of 2003. The biological resources on-site includes coastal sage scrub habitat. Impacts are proposed to the coastal sage scrub. Coastal sage scrub is a biological resource that is afforded some level of protection under the Biological Mitigation Ordinance. Rock outcrops were also observed on-site and are considered a unique microhabitat by the County.

No rare, threatened, or endangered plant species observed on-site during site surveys. No sensitive plant species were identified within the proposed impact area. One county sensitive bird, Cooper's hawk (*Accipiter cooperi*), was observed overhead.

Impacts to approximately 7.84 acres of coastal sage scrub habitat on-site will occur as a result of the grading and fire clearing for the proposed project. An additional 0.42 acres of coastal sage scrub habitat off-site will be impacted to meet fire clearing requirements. All impacts will be fully mitigated in accordance with the Biological Mitigation Ordinance. Mitigation for impacts to 7.84 acres of coastal sage scrub will be achieved through the on-site conservation of 12.38 acres of coastal sage scrub. Potential impacts to sensitive animal species observed and with a high and moderate potential to occur on-site will be mitigated by the habitat based mitigation in accordance with the BMO. Implementation of these mitigation measures will reduce impacts to below a level of significance.

2.0 INTRODUCTION

The proposed project is the grading of a driveway, house, and septic. Additionally, the project proposes 12.38 acres of open space.

The project area is located in eastern portion San Diego County within the Community of Lakeside in the County of San Diego (Figure 1). It is located east of Highway 67 north of Interstate 8. The project is located in Township 15 South, Range 1 East of the El Cajon Mountain USGS 7.5' Quadrangle (Figure 2). The project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP) and is mapped as a Pre-Approved Mitigation Area. The site qualifies as a BRCA in accordance with the Biological Mitigation Ordinance.

Topography, Soils, Land Use

The project area is located in the eastern portion of San Diego County within the foothills and interior valleys of the region. The property includes moderate to steep east and southeast facing slopes. Elevations range from 580 to 900 feet above mean sea level (MSL).

The soils on the property include Friant rocky fine sandy loam (FxG) with 30 to 70 percent slopes, and Riverwash (Rm) in a small area in the Southeast corner (Bowman 1973).

The Friant series consists of shallow and very shallow, well-drained fine sandy loams that formed in material weathered from fine-grained metasedimentary rock. These soils are on mountainous uplands and have slopes of 8 to 70 percent. Friant series soils are the dominate soil type.

Riverwash occurs in intermittent stream channels. The material is typically sandy, gravelly, or cobbly. It is excessively drained and rapidly permeable.

The property is primarily undeveloped. There are existing dirt roads and an existing pad.

Regional Setting

The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP). The site is located in an area of rural residential and agricultural lands. Undeveloped land is located to the north and east of the property. The site is located within a Pre-Approved Mitigation Area (PAMA). The site qualifies as a Biological Resource Core Area (BRCA) as defined within Article VI.A.1.a of the Biological Mitigation Ordinance as a result of being located with a PAMA.

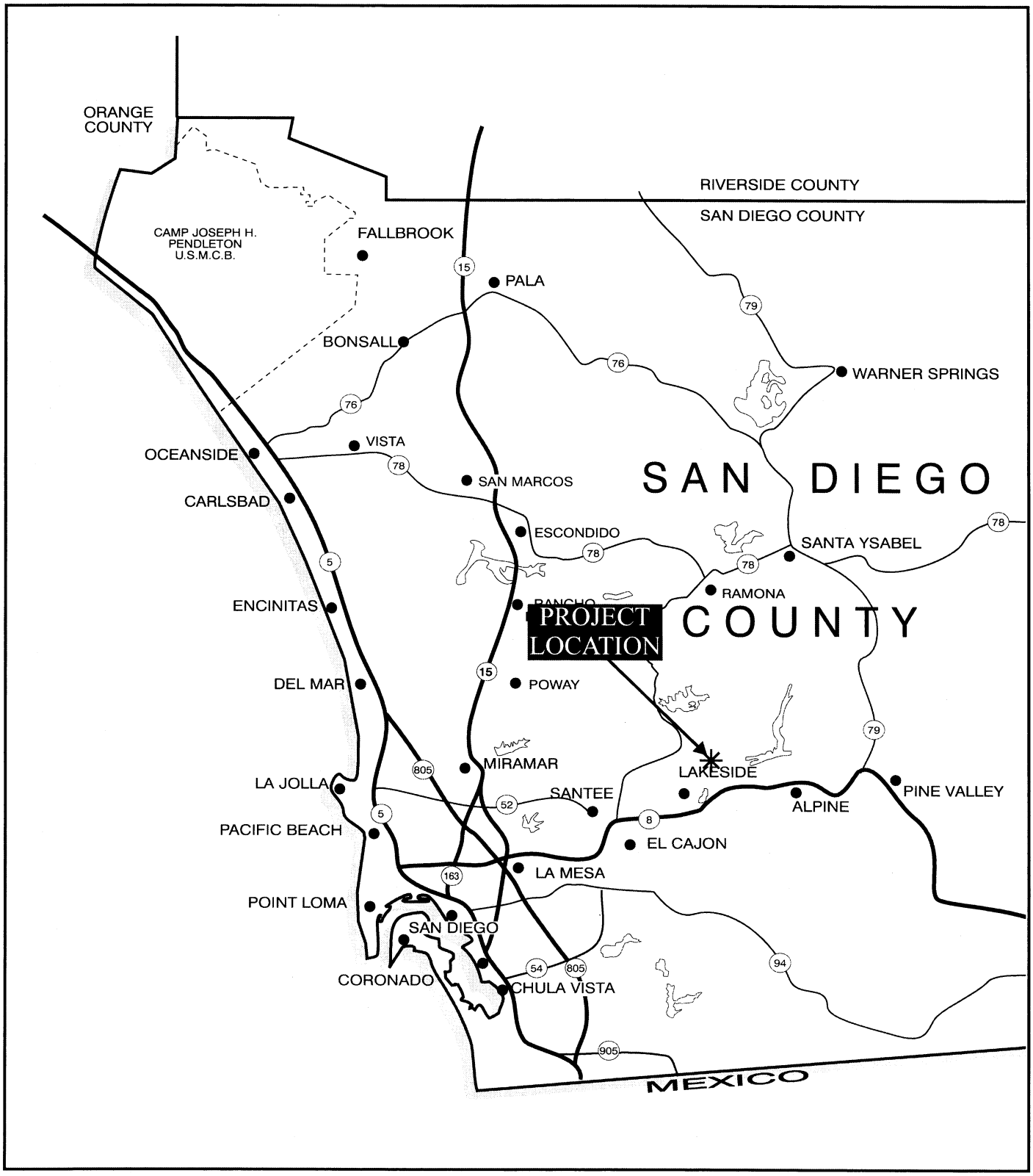
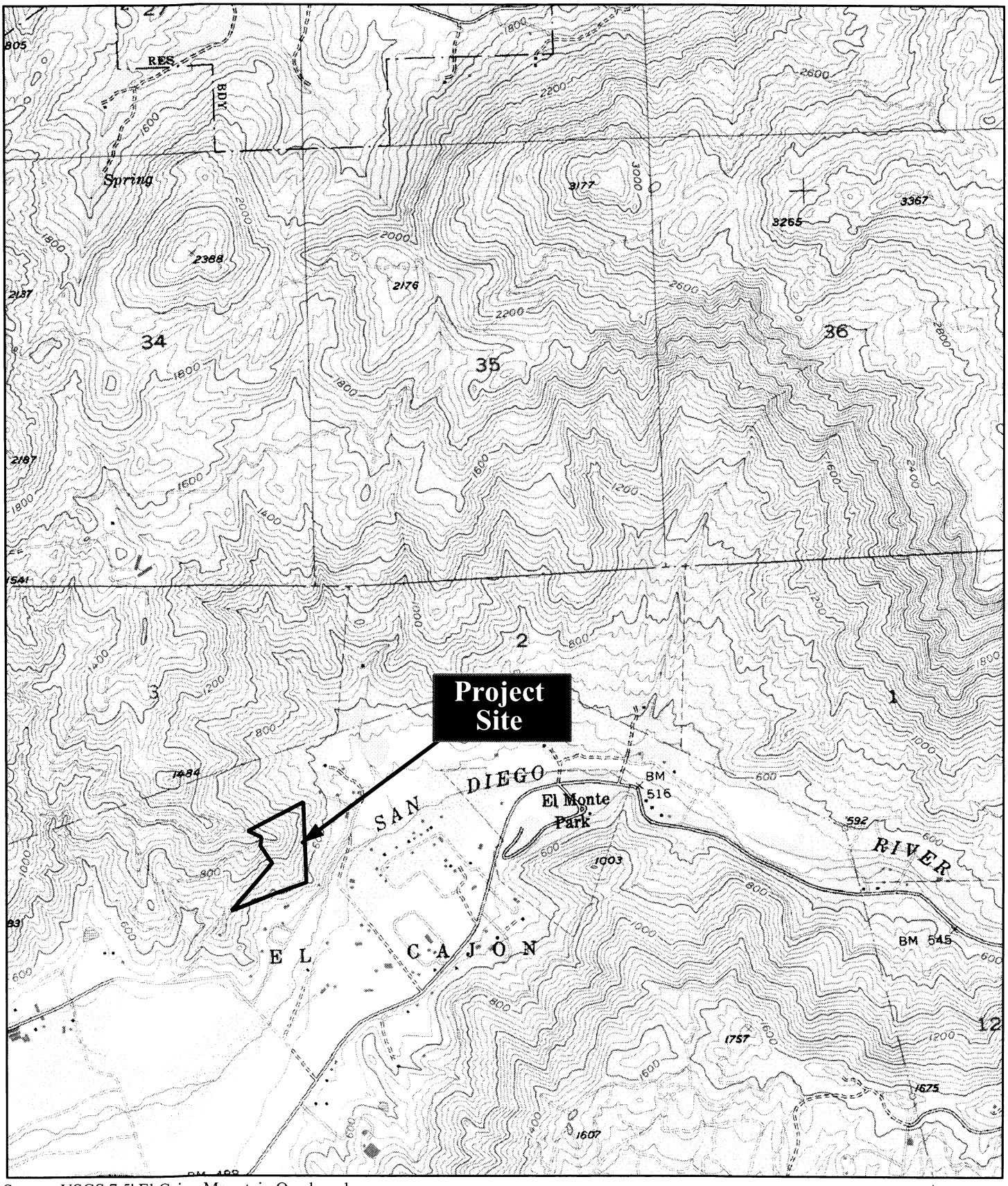


Figure 1
Regional Location Map



Source: USGS 7.5' El Cajon Mountain Quadrangle

Figure 2

Project Location

3.0 SURVEY METHODOLOGY

The site was surveyed on foot and habitat mapped (Figure 3). Mapping was performed following the Biological Resources Mapping Requirements (County 2002). Wildlife species were identified directly by sight or by vocalizations, and indirectly by scat, tracks, or burrows. Field notes were maintained throughout the surveys and species of interest were mapped. Surveys focused on sensitive plant and wildlife species and all species observed were noted. The presence or absence of suitable habitat for sensitive species was also identified. The primary focus of the survey was to document and map the size, location, and general quality of all habitat types and the presence or potential presence of any sensitive resources (plant or wildlife) on-site.

Nomenclature for this report conforms to Hickman (1993), for plants, Holland (1986) and Oberbauer (1996) for plant communities and habitat types, American Ornithological Union (AOU 1982) for birds, Jennings (1983) and Stebbins (1985) for reptiles and amphibians, Jones (1992) for mammals, and Powell (1979) for insects.

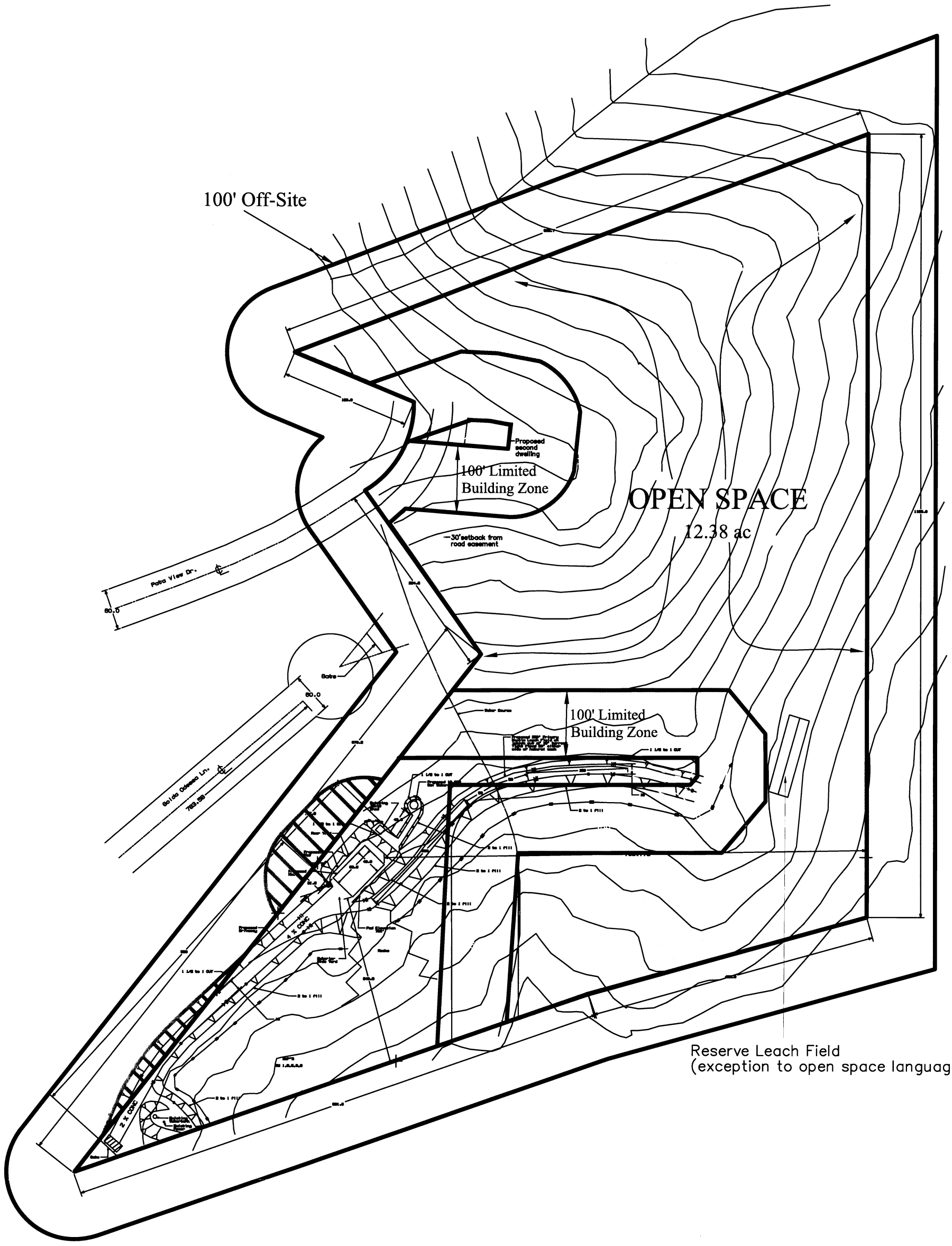
One general biology survey was conducted by Associate Biologists, Andrew Drummond and Amanda Gabrielson, on July 13, 2005. The survey took place from 9:00-11:15AM on a clear day with 0-5mph winds and 78-86°F.

4.0 RESULTS

The following discussion summarizes the existing biological resources on-site including habitats, vegetation and wildlife. The entire site burned in the Cedar Fire of 2003 and as a result, the vegetation on-site is regenerating. Habitats are depicted on Figure 3.

4.1 Vegetation

Habitat descriptions are based on the County of San Diego's Biological Mapping Requirements (County 2002) and Terrestrial Vegetation Communities in San Diego County based in Holland's Descriptions (Oberbauer 1996), however, it has been shown that habitats on the project sites in San Diego County are often not pristine and rarely fit into one description. Therefore the best-fit definition based on the County's current descriptions and dominant plant species has been applied. One vegetation type occurs on-site, coastal sage scrub. The habitat is depicted on Figure 3. A complete list of plant species observed on-site is included in Appendix A. The plant list includes all species observed on-site.



Legend:

- Coastal Sage Scrub (20 acres) Habitat Code: 32500
- Off-site Impacts (0.42 acres)
- Open Space (12.38 acres) (Coastal Sage Scrub)
- 100' Limited Building Zone

NORTH

Scale 1"=150'

RC Biological Consulting	**Biological Resources Map for the Bloom Property ER 05-14-017**	**Figure 3**

Coastal Sage Scrub – (Habitat Code: 32500)

Coastal sage scrub is the dominant habitat on this site and is composed of low, soft-woody subshrubs (to ca. 1 m high) that are largely drought deciduous. The coastal sage scrub on the site is in regrowth due to the 2003 wildfires. Dominant species on-site include laurel sumac (*Malosma laurina*) and wand chicory (*Stephanormeria virgata*).

Approximately 0.51 acres of previously mapped disturbed habitat occur in association with a graded road and pad. The habitat prior to grading was coastal sage scrub. Grading was preformed without approval, therefore the 0.51 acres has been included within the coastal sage scrub habitat. The entire site is composed of coastal sage scrub.

Rock outcrops (No Habitat Code)

Rock outcrops are considered a unique microhabitat by the County. Rock outcrops add diversity to the vegetation communities by providing a discrete ecological niche for species not found elsewhere in the surrounding habitat. Rock outcrops occur throughout the center of the site and to the west off-site of the property.

4.2 Wildlife

A total of 11 wildlife species were identified on-site. These included five insect species, one reptile species, four bird species, and one mammal species. A complete list of wildlife species observed on-site is included as Appendix B.

Insects observed included ants (Family *Formicidae*), honey bees (*Apis mellifera*), and butterflies such as the Edward's blue (*Hemiargus ceraunus gyas*), cabbage white (*Artogeia rapae*), and an unidentified skipper. One reptile species, western fence lizard (*Sceloporus occidentalis*), was observed. Birds that would typically occur in the habitats on-site were observed including cliff swallow (*Petrochelidon pyrrhonota*), common raven (*Corvus corax*), and an unidentified hummingbird. One Cooper's hawk (*Accipiter cooperii*) was observed overhead. Mammals detected on-site include the desert cottontail rabbit (*Sylvilagus audubonii*).

4.3 Sensitive Resources

Sensitive or special interest plant and wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive habitats, as identified by these same groups, are those which generally support plant or wildlife species considered sensitive by these resource protection agencies or groups. Sensitive species and habitats are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, degradation due to development or invasion by non-native species, or a combination of all of these factors.

In addition to the MSCP the following were used in the determination of sensitive biological resources: U.S. Fish and Wildlife Service (USFWS) (USFWS 2001); California Department of Fish and Game (CDFG) (CDFG 1999, 2000 and 2001); and California Native Plant Society (CNPS 2001). An explanation of the sensitivity codes used in this report is included in Appendix E.

Applicable Resource Conservation Plans and Ordinances

In San Diego County, regulations have been adopted which define and provide protection to certain types of sensitive biological resources as follows:

Multiple Species Conservation Program (MSCP) and Biological Mitigation Ordinance (BMO)

In response to the continued loss of sensitive biological resources, especially coastal sage scrub, the County adopted the MSCP in 1997. The proposed project must conform to the MSCP Subarea Plan, and the project must demonstrate that it has incorporated avoidance measures to meet the preserve design requirements of the Plan. To implement the MSCP Subarea Plan, the County enacted the BMO. Habitats are classified in different "Tier" levels that require different levels of mitigation. Application of the BMO to individual projects is the method by which the County will achieve the conservation goals set forth in the MSCP. Mitigation requirements for different habitat types are based on the location of both the impact and the proposed mitigation. Impacts within core habitat areas or pre-approved mitigation areas require higher mitigation ratios. Conversely, more credit is allowed for preservation or mitigation within core habitat areas or pre-approved mitigation areas.

4.3.1 Sensitive Plants

Sensitive or special interest plant species are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive plant species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive plant species include: CDFG (1999) and the California Native Plant Society Electronic Inventory (CNPS 2003).

A sensitive plant survey was conducted within the proposed limits of impact shown on Figure 3. Within the survey area, no rare, threatened, or endangered plant species were observed. Seventeen sensitive plant species are known from the area. All of the species would have been observable during the surveys performed on-site. Sensitive plant species with the potential to occur on-site are discussed in Appendix C.

4.3.2 Sensitive Animals

Sensitive or special interest wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive biological resources include: USFWS (USFWS 2001), CDFG (CDFG 2000 and 2001). Additional species receive federal protection under the Bald Eagle Protection Act and the Migratory Bird Treaty Act and Convention for the Protection of Migratory Birds and Animals.

The CDFG also lists species as threatened or endangered, or candidates for listing as threatened or endangered. Lower sensitivity animals may be listed as "species of special concern" (CDFG 2000). The CDFG further classifies some species under the following categories: "fully protected", "protected furbearer," "harvest species," "protected amphibian," and "protected reptile." The designation "protected" indicates that a species may to be taken or possessed except under special permit from the CDFG; "fully protected" indicates that a species can be taken only for scientific purposes. The designation "harvest species" indicates that take of the species is controlled by the state government.

No rare, threatened or endangered animal species were observed on-site. One sensitive animal species was observed, Cooper's hawk.

Cooper's Hawk (*Accipiter cooperii*)

The Cooper's hawk, when nesting, is listed as a California Special Concern species by California Department of Fish and Game. This species is a year-long resident in southern California. It is most likely to occur in areas with dense stands of live oak, riparian, deciduous, or other forest habitats near water. This is a covered species within the MSCP. The species was seen overhead.

Additional Sensitive Wildlife Species with the Potential to Occur

Additional animal species with the potential to occur include forty-one sensitive species that are discussed in Appendix D. Of the forty-one sensitive species with the potential to occur on-site, eight have a high potential to occur on-site, and thirteen have a moderate potential to occur. The species with a high potential to occur on-site include coastal rosy boa (*Charina trivirgata roseofusca*), Coast patch-nosed snake (*Salvadora hexalepis virgultea*), San Diego banded gecko (*Coleonyx variegatus abbotti*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), ringtail (*Bassariscus astutus*), rufous-crowned sparrow (*Aimophila ruficeps canescens*), and turkey vulture (*Cathartes aura*). The species with a moderate potential to occur include Quino checkerspot butterfly (*Euphydryas editha*

quino), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), Coronado skink (*Eumeces skiltonianus interparietalis*), northern red diamond rattlesnake (*Crotalus ruber ruber*), orange-throated whiptail (*Cnemidophorus hyperythrus*), San Diego ringneck snake (*Diadophis punctatus similes*), mountain lion (*Felis concolor*), pallid bat (*Antrozous pallidus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), southern grasshopper mouse (*Onychomys torridus ramona*), southern mule deer (*Odocoileus hemionus fuiliginata*), golden eagle (*Aquila chrysaetos canadensis*), and loggerhead shrike (*Lanius ludovicianus*). All of these species with a high, and moderate potential to occur on-site except the San Diego ringneck snake, turkey vulture, mountain lion, ringtail, and southern mule deer are federal and/or state species of concern. All of these are County sensitive species. The Quino checkerspot butterfly (*Euphydryas editha* quino) has a moderate potential to occur on-site and is federally listed. This species is discussed below in addition to the California Gnatcatcher (*Polioptila californica*) due to its sensitivity.

Quino Checkerspot Butterfly (*Euphydryas editha quino*)

Status: Federally listed as Endangered.

The United States Fish and Wildlife Service (USFWS) officially listed the Quino checkerspot butterfly (*Euphydryas editha quino*) as "endangered" on January 16, 1997 (USFWS 1997). For this reason the Quino checkerspot is protected under the provisions of the Endangered Species Act of 1973, as amended. As such, "take" of this species, either directly or indirectly, is prohibited by law. In order to help land owners in preventing an unknowing "take" of this species, the USFWS has required that land owners have a protocol survey conducted on their land prior to project implementation in order to determine the presence or absence of this species.

The Quino checkerspot butterfly is one of several subspecies of *Euphydryas editha*. It is a member of the brush-footed butterfly family (Nymphalidae). The Quino checkerspot is associated with a variety of habitats which include clay soil meadows, grassland, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland and semi-desert (Ballmer, *et al.*, 2000). Despite association with a wide range of habitat, distribution of this species is restricted to areas which support the larval host plants. The Quino's primary host plant is *Plantago erecta*. Other possible larval host plant species include *Plantago patagonica*, *Antirhinnum coulterianum*, *Castilleja exserta* and/or *Cordylanthus rigidus* (USFWS 2002) as well as *Collinsia* and possibly other Scrophulariaceae (Ballmer *et al.* 2000). Generally the flight season for the Quino checkerspot occurs from late February through April, peaking in March or April. This species has a moderate potential to occur due to the open habitat. The survey was performed at the wrong time of year to detect the host plant, *Plantago erecta*.

California Gnatcatcher (*Polioptila californica*)

Status: Federally listed as Threatened, State Species of Concern

The California gnatcatcher (CAGN), a Federally Threatened species and California Species of Concern, is a small gray songbird that is a resident of scrub-dominated communities in southwestern California from the Los Angeles Basin through Baja California, Mexico. California gnatcatcher populations have declined due to extensive loss of Diegan coastal sage scrub habitat to urban and agricultural uses. The entire site and a large expanse of land surrounding the site burned in the 2003 Cedar Fire and the vegetation is in regrowth. The California gnatcatcher has a low potential to occur on-site due to lack of suitable habitat on-site. Additionally, adequate time has not occurred for the California gnatcatcher to expand and re-colonize the area.

4.4 Wildlife Corridors

The primary wildlife corridor likely occurs to the north of the property in association with the drainage feature. Wildlife tend to use drainage features for movement and resting.

5.0 ANTICIPATED PROJECT IMPACTS

Impacts on biological resources can be categorized as either direct, indirect, or cumulative. Direct impacts are a result of project implementation, and generally include: the loss of vegetation and sensitive habitats and populations; the introduction of non-native species which may out-compete and displace native vegetation; activity-related to mortalities of wildlife; loss of foraging, nesting or burrowing habitat; destruction of breeding habitats; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include: off-road vehicle use which impacts sensitive plant or animal species; harassment and or collection of wildlife species; intrusion and wildlife mortality by domestic pets in open space areas following residential development; increased noise and lighting; and inadvertent increased wildlife mortalities along roads. Cumulative impacts occur as a result of on-going direct and indirect impacts for unrelated or fragmented projects overall. Cumulative impacts are assessed on a regional basis and determined the overall effect of numerous activities on a sensitive resource over a larger area.

Generally, there are three levels of adverse impacts associated with biological resources: significant, locally important, and not significant. The County of San Diego adopted the regional Multiple Species Conservation Program and Subarea Plan in 1997. To implement the Subarea Plan the County enacted the Biological Mitigation Ordinance. These documents identify biological resources and, indirectly, thresholds for significance. Habitats are classified in different tier levels which require different levels of mitigation. Habitats within Tiers I to III, require mitigation under the Biological Mitigation Ordinance and therefore are considered significant.

These levels of impacts were applied to the project site and are used below in the discussion of specific potential impacts. Figure 3 details the proposed impact areas and open space.

5.1 Proposed Project and Potential Impacts

The proposed project is the grading of a driveway, house and septic. Additionally, the project proposes 12.38 acres of open space. The project is located within the Metro-Lakeside-Jamul portion of the MSCP and is mapped as a pre-approved mitigation area. The site qualifies as a BRCA in accordance with the Biological Mitigation Ordinance. Table 1 identifies the potential impacts as a result of the proposed project.

Table 1
Habitat Impacts and Mitigation

Habitat	Direct Impacts (Grading and Fire Clearing)	Mitigation Ratio	On-site Conservation (acres)*
Coastal Sage Scrub (Tier II) on-site	7.84	1.5:1	11.76
Coastal Sage Scrub (Tier II) off-site	0.42	1.5:1	0.62
Total	**8.26**		**12.38**

* The reserve leach field was considered an impact. The installation of the reserve leach field will need to be an exception allowed in the open space easement language.

5.2 Significance of Direct Impacts

The following section discusses the significance of potential impacts to the resources as a result of grading, 100 feet of fire modification off of the house pad, and ten feet of fuel modification on each side of the improved driveway access. Impacts will occur to coastal sage scrub habitat.

Coastal Sage Scrub (Tier II)

Impacts to approximately 8.26 acres of coastal sage scrub would be considered significant. These impacts would require mitigation at a 1.5:1 ratio in accordance with the BMO.

Corridors and Linkages

The Pre-Approved Mitigation Area is 3½ miles in width where the proposed project is located. The project has minimized impacts to the maximum extent practicable: the primary residence is located within the southwestern point of the property, preserving the eastern and northern areas of the project site. The project has planned impacts to a previously graded road and pad. The proposed secondary dwelling is also located in the northwest region of the site where impacts will be minimized since it borders pre-existing dirt roads and creates a contiguous open space along the eastern half of the property. The proposed open space is contiguous with large tracts of undeveloped land to the north and

east of the site that make up the PAMA extending southeast of San Vicente reservoir to El Capitan reservoir (Figures 4 & 5). This will provide a linkage area for wildlife movement. Additionally, the proposed driveway, which is centered on an existing dirt road, does not represent an impediment to wildlife movement. The actual structure and fire clearing will impact approximately 250 feet in width. The maximum width of impact is 500 feet from the property line where the reserve septic is located. Impacts to 500 feet of the 3 ½ mile wide corridor will not result in a significant impact to the corridor. In addition, the limited impacts to the site and low intensity use of the site will not prevent wildlife movement through the site or use of the site.

Sensitive Plant Species

No rare, threatened, or endangered plant species were observed within the limits of the study area. No additional sensitive plant species have more than a low potential to occur on-site as discussed in Appendix C. No significant impacts will occur to sensitive plants.

Sensitive Wildlife Species

One rare, threatened, endangered or sensitive wildlife species was observed on-site. One Cooper's hawk was observed overhead. The United States Fish and Wildlife Service (USFWS) officially listed the Quino checkerspot butterfly (*Euphydryas editha quino*) as "endangered" on January 16, 1997 (USFWS 1997). This species has a moderate potential to occur due to the potential presence of the host plant, *Plantago erecta* on-site. Impacts to sensitive wildlife species with a high and moderate potential to occur on-site would be considered significant. These species are further addressed in Appendix D.

6.0 PROPOSED MITIGATION

Under CEQA, mitigation is required for all significant biological impacts (i.e. impacts within highly constrained areas). The following mitigation measures are recommendations to offset significant impacts. Recommendations are also given to offset locally important biological impacts. Although mitigation measures are not often required for locally important impacts, local jurisdictions often implement these measures to minimize cumulative impacts within the region.

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant impact to on-site biological resources if it would:

- Have a substantial adverse affect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Biological Mitigation Ordinance

The BMO requires that mitigation be provided, in accordance with ratios which take into account factors such as: (1) What "Tier" the impacted habitat falls into; (2) whether the impacted resources are located within a Biological Resources Core Area (BRCA) and (3) whether the mitigation land would be located on-site or offsite. As discussed in Section 2.0, Regional Setting, the project site qualifies as a BRCA.

Under CEQA, mitigation is required for all significant biological impacts. Mitigation, per resource, is discussed below with corresponding level of significance after mitigation.

Coastal Sage Scrub (Tier II)

Approximately 8.26 acres of this habitat will be impacted as a result of the proposed project. Mitigation for this impact will be the on-site conservation of 12.38 acres of coastal sage scrub. The implementation of this mitigation will reduce the impacts to below a level of significance.

Sensitive Plant and Wildlife Species

No sensitive plants were observed on the property.

Potential impacts to sensitive animal species observed and with a high and moderate potential to occur on-site will be mitigated by the habitat based mitigation in accordance with the BMO.

With implementation of the proposed mitigation measures, impacts to biological resources will be mitigated to below a level of significance.

7.0 LITERATURE CITED

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8.0 CERTIFICATION

This report has been prepared by Robin Church, County Certified Biologist and Amanda Gabrielson, Associate Biologist.

APPENDIX A

PLANTS SPECIES OBSERVED

	APPENDIX A PLANT SPECIES OBSERVED ON THE BLOOM PROPERTY ER # 05-14-017		
Family Name	Species Name	Common Name	Habitat
	ANGIOSPERMS: DICOTS		
Anacardiaceae	***Malosma laurina***	Laurel Sumac	CSS
Anacardiaceae	***Rhus ovata***	Sugar Bush	CSS
Anacardiaceae	***Toxicodendron diversilobum***	Western Poison-Oak	CSS
Asteraceae	***Artemisia californica***	Coastal Sagebrush	CSS
Asteraceae	***Baccharis sarothroides***	Broom Baccharis	CSS
Asteraceae	****Centaurea solstitialis***	Yellow Star-thistle	CSS
Asteraceae	****Chrysanthemum coronarium***	Garland/crown Daisy	CSS
Asteraceae	***Cirsium occidentale*** var. ***californicum***	California Thistle	CSS
Asteraceae	***Conyza canadensis***	Horseweed	CSS
Asteraceae	***Gnaphalium californicum***	California Everlasting	CSS
Asteraceae	***Gutierrezia californica***	California Matchweed	CSS
Asteraceae	***Hazardia squarrosa*** var. ***grindelioides***	Sawtooth Goldenbush	CSS
Asteraceae	****Lactuca serriola***	Prickly Lettuce	CSS
Asteraceae	***Stephanomeria virgata*** ssp. ***virgata***	Virgate Wreath-plant	CSS
Brassicaceae	****Brassica nigra***	Black Mustard	CSS
Chenopodiaceae	***Atriplex* sp.**		CSS
Chenopodiaceae	****Salsola tragus***	Russian-thistle, Tumbleweed	CSS
Convolvulaceae	***Calystegia* sp.**	Morning-glory	CSS
Cuscutaceae	***Cuscuta californica*** var. ***californica***	Dodder	CSS
Euphorbiaceae	***Chamaesyce albomarginata***	Rattlesnake Spurge	CSS
Euphorbiaceae	***Eremocarpus setigerus***	Doveweed	CSS
Fabaceae	***Lotus scoparius***	Deerweed	CSS
Hydrophyllaceae	***Phacelia cicutaria*** var. ***hispida***	Caterpillar Phacelia	CSS
Lamiaceae	***Salvia apiana***	White Sage	CSS
Lamiaceae	***Salvia mellifera***	Black Sage	CSS
Malvaceae	***Malacothamnus densiflorus***	Many-flower Bushmallow	CSS
Nyctaginaceae	***Mirabilis laevis***	Wishbone Plant	CSS
Onagraceae	***Camissonia bistorta***	California Sun Cup	CSS
Polygonaceae	***Eriogonum fasciculatum***	California Buckwheat	CSS
Scrophulariaceae	***Antirrhinum nuttallianum*** ssp. ***nuttallianum***	Nuttall's Snapdragon	CSS
Scrophulariaceae	***Mimulus aurantiacus***	Coast Monkey Flower	CSS

APPENDIX B

WILDLIFE SPECIES OBSERVED

APPENDIX B

WILDLIFE SPECIES OBSERVED ON THE BLOOM PROPERTY
ER #- 05-14-017

Common Name	Scientific Name	Habitat Observed *	# Observed (estimate)
Insects			
Ant	**Family** *Formicidae*	CSS	many
Cabbage white	*Artogeia rapae*	CSS	10
Edward's blue	*Hemiargus ceraunus gyas*	CSS	1
Honey bee	*Apis mellifera*		
Unidenitified Skipper		CSS	1
Reptiles			
Western fence lizard	*Sceloporus occidentalis*	CSS	1
Birds			
Cliff swallow	*Petrochelidon pyrrhonota*	OH	many
Common raven	*Corvus corax*	OH	1
Cooper's hawk	*Accipiter cooperii*	OH	1
Unidenitified Hummingbird		CSS	1
Mammals			
Desert cottontail rabbit	*Sylvilagus audubonii*	scat	1

* CSS- Coastal Sage Scrub, DV-Developed, OH-Over head

APPENDIX C

SENSITIVE PLANT SPECIES WITH THE POTENTIAL TO OCCUR

APPENDIX C

SENSITIVE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO BLOOM PROPERTY (USGS EL CAJON MOUNTAIN QUAD)

Species	Growth form/Bloom Period	CNPS	R-E-D	State	Federal	Potential to Occur Onsite
ACANTHOMINTHA ILICIFOLIA "San Diego thorn-mint"	Annual herb April - June	1B	2-3-2	CE	FT	Low, no clay soil on-site.
ACHNATHERUM DIEGOENSE "San Diego County needle grass"	Perennial herb February - June	4	1-2-1	None	None	Low, focused surveys did not identify this species on-site.
AMBROSIA PUMILA "San Diego ambrosia"	Perennial herb May - September	1B	3-3-2	None	SO	Low, dense vegetation near ephemeral creekbed inhibits growth.
ARTEMISIA PALMERI "San Diego sagewort"	Shrub (deciduous) May - September	4	1-2-1	None	None	Low, suitable riparian habitat not found on-site.
BACCHARIS VANESSAE "Encinitas baccharis"	Shrub (deciduous) August - November	1B	2-3-3	CE	FT	Low, focused surveys did not identify this species on-site.
BRODIAEA ORCUTTII "Orcutt's brodiaea"	Perennial herb (bulbiferous) May - July	1B	1-3-2	None	SO	Low, no clay soil on-site.
CAULANTHUS STENOCARPUS "slender pod jewelflower"	Annual herb March - June			None	Rare	Considered but rejected by CNPS. A synonym of *C. heterophyllus* var. *heterophyllus.*
CEANOTHUS CYANEUS "Lakeside ceanothus"	Shrub (evergreen) April - June	1B	3-2-2	None	SO	Low, closed-cone coniferous forest habitat not found on-site.
CEANOTHUS VERRUCOSUS "wart-stemmed ceanothus"	Shrub (evergreen) December - April	2	2-2-1	None	SO	Low, suitable chaparral habitat not found on-site.
CHORIZANTHE PROCUMBENS "prostrate spineflower"	Annual herb March - May			None	None	Considered but rejected by CNPS. Too common.
CLARKIA DELICATA "delicate clarkia"	Annual herb April - June	1B	2-2-2	None	None	Low, chaparral and cismontane woodland not found on-site.
COMAROSTAPHYLIS DIVERSIFOLIA SSP. DIVERSIFOLIA "summer holly"	Shrub (evergreen) April - June	1B	2-2-2	None	SO	Low, no north facing slopes found on-site.
DICHONDRA OCCIDENTALIS "western dichondra"	Perennial herb (rhizomatous) March - July	4	1-2-1	None	None	Low, suitable soil not found on-site.
DUDLEYA VARIEGATA "variegated dudleya"	Perennial herb May - June	1B	2-2-2	None	SO	Low, no clay soil found on-site.
DUDLEYA VISCIDA "sticky dudleya"	Perennial herb May - June	1B	2-2-3	None	SO	Low, no clay soil found on-site.
ERODIUM MACROPHYLLUM "round-leaved filaree"	Annual herb March - May	2	2-3-1	None	None	Low, no clay soil or cismontane woodland on-site.
GITHOPSIS DIFFUSA SSP. FILICAULIS "Mission Canyon bluecup"	Annual herb April - June	3	?3-3	None	SO	Low, no suitable sandy openings found on-site.
MUILLA CLEVELANDII "San Diego goldenstar"	Perennial herb (bulbiferous) May	1B	2-3-2	None	SO	Low, clay soils not found on-site.

APPENDIX C

SENSITIVE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO BLOOM PROPERTY (USGS EL CAJON MOUNTAIN QUAD)

Species	Growth form/Bloom Period	CNPS	R-E-D	State	Federal	Potential to Occur Onsite
SELAGINELLA CINERASCENS						Low, disturbed habitat was found on-site.
TETRACOCCUS DIOICUS "Parry's tetracoccus"	Shrub (deciduous) April - May	1B	3-2-2	None	SO	Low, no chemise chaparral with dense canopy cover on-site.
VIGUIERA LACINIATA "San Diego County viguiera"	Shrub February - June	4	1-2-1	None	None	Low, focused surveys did not identify this species on-site.

APPENDIX D

SENSITIVE WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE BLOOM PROPERTY

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
INSECTS				
Dun skipper	*Euphyes vestris harbisoni*	SOC/-	Woods and edges, prairies and roadsides, seeps and springs in southern California (Glassberg 2001). Primary host plant *Carex spissa* (Faulkner and Klein 2003).	Low, no appropriate habitat occurs on-site. No *Carex spissa* was present.
Hermes copper	*Lycaena hermes*	SOCSC	Coastal sage scrub, mixed chaparral and chamise chaparral;0-3000ft. Host plant *Rhamnus crocea* , in proximity to *Eriogonum fasciculatum* .	Low, no appropriate habitat occurs on- site. No *Rhamnus crocea* was present.
Monarch butterfly	*Danaus plexippus*	-CSC	Wintering sites composed of grassland, oakwoodlands and montaine meadows; host plant milkweed (*Asclepias* sp.). 60 to over 3000ft.	Low, no appropriate habitat occurs on-site. No *Asclepias* sp. was present.
Quino Checkerspot	*Euphydryas editha quino*	FESO	Open shrub habitats, primary host plant is *Plantago erecta.*	Moderate.
AMPHIBIANS				
Western spadefoot toad	*Scaphiopus hammondii*	SOCSC	Grassland situations can occasionally occur in valley-foothill hardwood woodlands. Populations may persist a few years in orchard-vineyard habitats; 0-3000ft.	Low, no appropriate habitat occurs on-site
REPTILES				
Coastal rosy boa	*Charina trivirgata roseofusca*	SOCSC	Coastal sage scrub, mixed chaparral, oakwoodlands and chamise chaparral. Often found in association with rock outcrops;0-6000 ft.	High, appropriate habitat occurs on-site
Coastal western whiptail	*Cnemidophorus tigris multiscutatus*	SOCSC	Mixed chaparral, riparian, oak woodlands, desert scrub, valley-foothill hardwood, mixed conifer, alkali scrub, annual grass types, and chamise chaparral. Common around dense vegetation.	Moderate.
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	SOCSC	Grass, chaparral, woodland, desert and coastal sage scrub. Found near rock outcrops with adjacent seasonal drainages;0-3000ft.	High, appropriate habitat occurs on-site
Coronado skink	*Eumeces skiltonianus interparietalis*	SOCSC	Coastal sage scrub, grassland, riparian, near vernal pools, oakwoodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes. Found during the winter after rainfalls or during spring;0-3000ft.	Moderate, suitable cover such as rotting logs and large flat stones are not present.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE BLOOM PROPERTY

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
Northern red diamond rattlesnake	*Crotalus ruber ruber*	SOCSC	Coastal sage scrub, mixed chaparral, open grassy areas and agricultural areas, chamise chaparral, pinon juniper and desert scrub;0-3000ft.	Moderate.
Orange-throated whiptail	*Cnemidophorus hyperythrus*	SOCSC Protected	Can be found in coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rockwell drained soils;0-1000ft.	Low, no appropriate habitat occurs on-site
San Diego banded gecko	*Coleonyx variegatus abbotti*	SOI-	This species is uncommon in coastal scrub and chaparral mostly occurring in granite or rocky out crops in this habitat (Ziner *et. al.* 19	High, appropriate habitat occurs on-site.
San Diego horned lizard	*Phrynosoma coronatum blainvillei*	SOCSC	Occurs in valley-foothill hardwood, conifer and riparian habitats, as well as in pine-cypress, juniper and annual grass habitats;needs open areas for basking, ants and other insect prey. 0-6000ft.	Low, ants were observed in developed areas only and no appropriate habitat occurs on-site.
San Diego ringneck snake	*Diadophis punctatus similis*	County Sensitive	Coastal sage scrub, mixed chaparral, riparian, oakwoodlands, chamise chaparral, mixed conifer, closed cone forest in moist micro-habitats. Can be found on surface during winter after rainfalls or during spring;0 -200 ft.	Moderate, appropriate habitat occurs on-site.
Silvery legless lizard	*Anniella pulchra pulchra*	SOCSC	Coastal sage scrub, grassland, riparian and coastal desert dunes. Found in sandy loam and areas of accumulated leaf litter beneath shrubs and trees in moist micro-habitats;0 to 6000 ft.	Low, no moist habitats on-site.
MAMMALS				
Big free-tailed bat	*Nyctinomops macrotis*	--CSC	This species is found in a variety of plant associations including desert scrub, various woodlands and coniferous forests. It is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky outcrops;0 to 3000ft.	Low, rare in California. In addition, no appropriate habitat occurs on-site.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE BLOOM PROPERTY

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
Dulzura California pocket mouse	*Chaetodipus californicus femoralis*	SOCSC	Occupies coastal sage scrub, mixed chaparral, oakwoodland, chamise chaparral, and mixed conifer habitats;0 to over 3000ft.	High, appropriate habitat occurs on-site. Small burrows found in soft soil.
Greater western mastiff bat	*Eumops perotis californicus*	SOCSC	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting;50-3000ft.	Low, appropriate roosting habitats do not occur on-site.
Los Angeles little pocket mouse	*Perognathus longimermbris brevinasus*	SOCSC	Los Angeles Pocket mouse is restricted to lower elevation grasslands and Coastal Sage associations in the Los Angeles Basin;0-1000ft.	Low, no appropriate habitat occurs on-site.
Mexican long-tounged bat	*Choeronycteris mexicana*		Species found occupying desert and montane riparian, desert succulent shrub, desert scrub, and pinyon-juniper habitats;0-6000ft.	Low, no appropriate habitat occurs on-site
Mountain Lion	*Felis concolor*	County Sensitive	Species found in a variety of different habitats from desert to coast range forest;0 to 10,000ft.	Moderate, may forage on-site.
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	SOCSC	Nocturnal. Found in coastal sage scrub and mixed and chamise chaparral. Seek cover in rocky/gravelly areas with a yucca overstory;50-3000ft	High, appropriate habitat occurs on-site.
Pallid bat	*Antrozous pallidus*	--CSC	Coastal sage scrub, mixed chaparral, oakwoodlands, chamise chaparral, desert wash and desert scrub. Prefers snags (especially oak), rocky outcrops, cliffs and crevices with access to open habitats for foraging;0-6000ft.	Moderate, may forage on-site.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE BLOOM PROPERTY

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
Pocketed free-tailed bat	*Nyctinomops femorosaccus*	--CSC	This species is found in a variety of plant associations including desert scrub, coastal scrub and pine oak woodlands. It is a colonial roosting species that is typically found in crevices of rugged cliffs and high, rocky outcrops;0 to 3000ft.	Moderate, may forage on-site.
Ringtail	*Bassariscus astutus*	County Sensitive	Nocturnal;found in mixed and chamise chaparral. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, or woodrat nests;60 to over 3000ft.	High, appropriate habitat occurs on-site.
San Diego black-tailed jackrabbit	*Lepus californicus bennetti*	SOCSC	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops;0 to over 3000ft.	Low, this species was not observed on-site.
San Diego desert woodrat	*Neotoma lepida intermedia*	SOCSC	Nocturnal in coastal sage scrub, desert, oak woodlands, chamise chaparral and rock in moderate to dense vegetation. Most abundant in rocky areas -- prefers rock outcrops and crevices for nest sites, but also builds nests in low branches of trees. 60-3000ft.	Low, no nests observed on-site.
Small-footed myotis	*Myotis ciliolabrum*	SOC/--	Occurs in arid uplands -- woody and brushy habitats near water. Roosts in caves, buildings, mines, crevices, bridges, and bark0 - 8000 ft.	Low, no appropriate habitat occurs on-site.
Southern grasshopper mouse	*Onychomys torridus ramona*	SOCSC	Nocturnal in coastal sage scrub, mixed chaparral, grassland, and chamise chaparral. Low to moderate shrub cover is preferred;60-3000ft.	Moderate, areas on-site may be too dense.
Southern mule deer	*Odocoileus hemionus fuiliginata*	County Sensitive	The mule dear is extremely adaptable occupying all but two or three of the major vegetation types in the western United States.	Moderate, appropriate habitat occurs on-site. Farmed areas with little cover are located near the site.
Townsends western big-eared bat	*Corynorhinos townsendii*	SOCSC	Found in all but subalpine and alpine habitats. Requires caves, mines, tunnels, buildings, or other human-made structures for night, day, hibernation or maternity roosts;60-10,000ft.	Low, not found in San Diego River watershed.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE BLOOM PROPERTY

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
Yuma myotis	*Myotis yumanensis*	SOCSC	Mixed chaparral, riparian, oak woodland and pinon juniper. Optimal habitats are open forests and woodlands with sources of water over which to feed;roosts in buildings, mines, caves, bridges, crevices, and abandoned swallow nests. Sea level to 11,000 feet, but uncommon above 6000 feet.	Low, no foraging habitat on-site.
BIRDS				
Bell's sage sparrow	*Amphispiza belli belli*	SOCSC	Coastal sage scrub, mixed and chamise chaparral. Nests well hidden in sagebrush or other scrub;0-3000ft.	Low, this species was not observed on-site during survey.
Burrowing owl	*Athene cunicularia hypugea*	SOCSC	Open, dry grasslands agricultural and range lands, and desert habitats of low growing vegetation (associated with burrowing animals);0-1000ft.	Low, no appropriate habitat occurs on-site.
California gnatcatcher	*Polioptila californica californica*	FTCSC	Most numerous in low, dense coastal sage scrub habitat of coastal hills.	Low, habitat on-site is in regrowth stage.
Golden eagle	*Aquila chrysaetos canadensis*	--CSC Fully protected	Mountains, foothills, and adjacent grassland, open areas and canyons;0-11,000 ft. (nesting/wintering)	Moderate, site is contiguous with large areas of open space.
Loggerhead shrike	*Lanius ludovicianus*	SOCSC	Roadside vegetation, thickets, savanna, coastal sage scrub, grasslands, riparian, oak woodlands and desert scrub and wash or any open country with high perches as lookouts;0-3000ft.	Moderate, appropriate habitat occurs on-site.
Northern harrier	*Curcus cyaneus hudsonius*	--CSC	Grasslands and salt, alkali and freshwater marshes;0-1000ft. Nests on ground in shrubby vegetation, usually emergent wetlands or along rivers or lakes. May also nest in grasslands, grain fields, or on sagebrush flats several miles from water.	Low, no suitable habitat on-site.
Rufous-crowned sparrow	*Aimophila ruficeps canescens*	SOCSC	Favors steep and rocky coastal sage scrub. Also seeks scattered grass in sage scrub and colonizes grass that grows as a successional stage following brush fires (Unitt 1984).	High, appropriate habitat occurs on-site.
Sharp-shinned hawk(nesting)	*Accipiter striatus*	--CSC	Open woodlands, residential, larger trees for nesting. Uncommon migrant and winter visitor, casual summer visitor;nesting has not been documented in San Diego County	Low, no suitable habitat on-site.

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE BLOOM PROPERTY

Common Name	Scientific name	Federal/ State Status	Habitat	Potential On-Site
Turkey vulture	*Cathartes aura*	County Sensitive	Spring and fall migrant, uncommon to locally common winter visitor and rare to uncommon summer resident of San Diego County (Unitt 1984)	High, appropriate habitat occurs on-site.

*Appendix E – Sensitivity Codes

APPENDIX E

SENSITIVITY CODES

APPENDIX E
SENSITIVITY CODES

FEDERAL SPECIES DESIGNATIONS (USFWS 2001)

Category	
FE	Federal Endangered species
FT	Federal Threatened species
FPE	Taxa proposed to be listed as Endangered.
FPT	Taxa proposed to be listed as Threatened.
SOC	Species of Concern (former Candidate Species)

STATE SPECIES DESIGNATIONS (CDFG 2000)

Category	
SE	State listed as Endangered.
ST	State listed as Threatened.
SR	State-listed Rare
SCE	State candidate for listing as Endangered.
SCT	State candidate for listing as Threatened.
CSC	CDFG "Species of Special Concern".

CALIFORNIA NATIVE PLANT SOCIETY DESIGNATIONS (CNPS 2003)

The CNPS Lists

List 1 Plants of highest priority.
- 1A Plants presumed extinct in California.
- 1B Plants rare, threatened or endangered in California and elsewhere.

List 2 Plants rare, threatened or endangered in California, but more common elsewhere.

List 3 Plants about which we need more information. (A Review List)

List 4 Plants of limited distribution (A Watch List).

The R-E-D Code

R (Rarity)
- 1 Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
- 2 Distributed in a limited number of occurrences, occasionally more if each occurrence is small.
- 3 Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported.

E (Endangerment)
- 1 Not endangered.
- 2 Endangered in a portion of its range.
- 3 Endangered throughout its range.

D (Distribution)
- 1 More or less widespread outside California.
- 2 Rare outside California.
- 3 Endemic to California.